# IV. AVIATION SAFETY (Airfields/Heliports)

#### 1. Administration

## a. Responsibilities

- (1) Are there written Standing Operating Procedures (SOP) for all functional areas and for all operations within the command? (AR 385-95, para 3-3 and para 1-6a(4)) P/F/NA
- (2) Has the airfield or heliport developed and maintains an airfield / heliport operations manual? (AR 95-2, para 13-4)

  P/F/NA
- (3) Does the airfield commander or manager establish noise abatement procedures? (AR 95-2, para 13-3c(12))

  P/F/NA
- (4) Does the airfield commander or manager establish and maintain a wildlife hazard management plan? (AR 95-2, para 13-3c(16)) P / F / NA
- (5) Does the airfield commander or manager remove, top or otherwise control trees penetrating imaginary surfaces or those posing a hazard to safe airfield operations? (AR 95-2, para 13-3c(23))

  P/F/NA
- (6) Has airfield commander or airfield manager developed a security plan or standard operating procedures to prevent runway/landing area and movement area incursions? (AR 95-2, para 13-4r)

  P/F/NA
- (7) Does the ASO gather and disseminate flight safety literature and develop programs to promote safety awareness? ( $AR\ 385-95$ ,  $para\ 1-6d(6)(i)$ )

  P/F/NA
- (8) Does the ASO maintain a current library of safety regulations, aircraft accident prevention directives, and instructional materials? (AR 385-95, para 1-6d(6)(h-i), AR 385-95 appendix A, AR 385-10, para 5-2v, AR 385-10 appendix A)

  P/F/NA
  - (9) Does the ASO maintain functional ARIMS files? (AR 25-400-2) P / F / NA
  - (10) Is the ASO registered on the EUR-Safety Net List Server? (AE Policy Letter #3)

    P/F/NA

#### b. Emergency Plan

- (1) Does the airport have an emergency plan developed and maintained? (AR 95-2, para 13-4k)  $\mathbf{P}/\mathbf{F}/\mathbf{NA}$
- (2) Does the airfield commander or manager develop procedures outlining airfield management actions in the event of reduced fire/crash rescue response capability? (AR 95-2, para 13-3c(8))

  P/F/NA
- (3) Does the airfield implement a fully coordinated aircraft rescue and fire fighting program? (AR 95-2, para 13-4h)

  P/F/NA

- (4) Has the airfield / heliport developed a local crash grid map or crash grid overlay? (AR 95-2, para 13-4h(3))

  P/F/NA
- (5) Does the airfield emergency plan have instructions for the following? (FM 3.04-300, appendix  $\mathbf{P}/\mathbf{F}/\mathbf{NA}$ 
  - a. Aircraft accidents and incidents?
  - b. Bomb incidents, including designated parking areas for the aircraft involved?
  - c. Structural fires?
  - d. Natural disasters?
  - e. Radiological/biological incidents?
  - f. Sabotage, hijack incidents, and other unlawful interference with airfield operations?
  - g. Power failure for movement area lighting?
  - *h.* Water rescue situations?
  - *i.* Hazardous material spills?
  - j. Ammunition handling procedures?
- (6) Is the airfield emergency plan reviewed and rehearsed annually, with a full-scale exercise at least every three years? (FM 3.04-300, para B-1 and B-2) P/F/NA

#### c. Inspections

- (1) Does the airfield commander or manager develop procedures for airfield operations (personnel to accomplish airfield inspections/checks? (AR 95-2, para 13-3c(10)) P/F/NA
- (2) Does the airfield commander or manager maintain a copy of approved airfield waiver package and ensure access to all personnel that conduct airfield inspection/checks? (AR 95-2, para 13-3c(17))

  P/F/NA
- (3) Is the airfield (including runways and taxiways) inspected at least once each shift for maintenance, police, and foreign object damage? (FM 3-04.300, para 2-14 and 3-2) P/F/NA
- (4) Does safety officer conduct airfield and safety inspection and advises airfield personnel on safety-related matters? (AR 385-95, para 1-6d(6)(g); FM 3-04.300, para 1-17) P/F/NA
- (5) Does the ASO ensure inspections are completed of the physical condition of airfields, heliports, and helipads, and that all noted hazards are publicized? (AR 385-95, para 1-6d(6)(g)) P/F/NA
- (6) Are obstruction surveys scheduled on a recurring 5-year cycle? (AOC surveys are required for AAFs or AHPs that have Army instrument approach procedures) (AR 95-2, para 13-5) P/F/NA
- (7) Are inspection checklists developed using the items in appendix D and appendix E? (AR 95-2, para 13-9 and 10) P/F/NA

- (8) Has airfield commander/manager and safety representatives conducted an annual airfield inspection? (AR 95-2, para 13-10) P/F/NA
- (9) Have representatives from DPW, ATC, airfield, NAVAID maintenance, and weather participated in the annual inspection? (AR 95-2, para 13-10)

  P/F/NA
- (10) Are aircraft tiedown ropes and anchors inspected periodically for serviceability? (FM 3-04.300, para 3-27)  $P \mid F \mid NA$

## d. Training

- (1) Has a comprehensive training program been established (FM 3-04.300, para 1-19, 2-13, 2-14, 3-2 & 3-3)

  P/F/NA
- (2) Does the airfield commander or manager ensure training and/or familiarization? (AR 95-2, para 13-4b)

  P/F/NA
  - a. All personnel who access movement areas and safety areas and perform duties on the airport/heliport?
    - b. Airport marking, lighting, and signs system?
    - c. Procedures for access to, and operation in, movement areas and safety areas?
  - d. Airport communications, including radio communication between the air traffic control tower and personnel, use of the common traffic advisory frequency if there is no air traffic control tower or the tower is not in operation, and procedures for reporting unsafe airport conditions?
    - e. Self-inspection program?
    - f. Pedestrians and ground vehicles?
    - g. Airport condition reporting?
    - h. Aircraft rescue and firefighting: Operational requirements?
    - i. Handling and storage of hazardous substances and materials?
    - i. Wildlife hazard management?
  - (3) Are records of training completed and maintained? (AR 95-2, para 13-4a) P/F/NA
- (4) Does the airfield commander or manager develop procedures for contractor personnel to receive training on airfield safety and flight-line driving before starting work and ensure airfield construction contracts contain these procedures and flight-line driving requirements? (AR 95-2, para 13-3c(18))
- (5) Does the ASO plan, promote, and conduct monthly safety education/training sessions? (AR 385-95, para 1-6d(6)(c) and 3-

- (6) Does safety officer schedule and conduct safety meetings and advises the airfield commander of potential problem areas? (FM 3-04.300, para 1-17) P/F/NA
- (7) Is monthly safety training being conducted as applicable for ground/maintenance personnel? ( $AR\ 385-95$ ,  $para\ 1-6f(2)$  and 3-5)

  P/F/NA
- (8) Has an effective make-up system been established that ensures personnel not able to attend a safety training meeting receive same quality of training? ( $AR\ 385-95$ ,  $para\ 3-5c$ ) P/F/NA
- (9) Does the Airfield Commander or Airfield Manager attend installation planning committee meetings and provides input on issues that affect the airfield? (AR 95-2, para 13-3c(1); FM 3-04.300, para 1-8)

  P/F/NA

## e. Safety Boards

- (1) Does the unit maintain safety bulletin boards for crewmembers and maintenance personnel? (TM 1-1500-204-23-1, para 2-5) P/F/NA
- (2) Is posted material timely, pertinent, and replaced frequently to maintain reader interest? (*TM 1-1500-204-23-1 para 2-5*)

  P/F/NA
- (3) Is DD Form 2272 (Department of Defense Safety and Occupational Health Program) posted in all industrial workplaces? (AR 385-10, para 2-2d)

  P/F/NA
  - (4) Are safety council minutes posted? (AR 385-95 para 3-4e)

P/F/NA

### 2. Safety Related Programs

### a. Operational Hazard Reporting

- (1) Has the Commander established procedures for reporting operational hazards, and does he ensure that all hazard reports are investigated and that hazardous conditions are corrected? (FM 3.04-300, P/F/NA
- (2) Does the ASO use OHRs to identify system inadequacies and develop countermeasures? (AR 385-95, para, 1-6d(6)(m) and chapter 2; AR 95-23, para 3-9)

  P/F/NA
  - (3) Does the ASO actively promote the OHR program? (AR 385-95, para 2-1e(2))

P/F/NA

- (4) Are OHRs (DA Form 2696) readily available? (AR 385-95, para 2-1) P/F/NA
- (5) Does the commander review, sign, and return the completed OHR to the ASO within 10 working days of the date the report was received? (AR 385-95, para 2-1e(2))

  P/F/NA
- (6) Is a file/log of hazards to track implementation and effectiveness of control options maintained at the airfield? (AR 385-95, para 3-1f; AR 385-10, para 3-9a and 4-1j)

  P/F/NA
- (7) Are blank DA Forms 4755 (Employee Report of Alleged Unsafe or Unhealthful Working Conditions) available? (AR 385-95, para 2-1c(2); AR 385-10, para 4-4a)

  P/F/NA

# b. Foreign Object Damage Prevention

- (1) Has a FOD program been established? (AR 385-95, para 2-2b(2)) P/F/NA
- (2) Is a unit FOD prevention officer designated in writing? (AR385-95, para 2-2c(1)(a)) P/F/NA
- (3) Is FOD prevention and FOD accidents reviewed at all unit safety meetings? (AR 385-95, para 2-2c(1)(c))

  P/F/NA
  - (4) Are monthly FOD inspections being conducted? (AR 385-95, para 2-2c(2)(d))

P/F/NA

- (5) Are parking areas, runways, taxiways, run up and exhaust areas policed regularly to ensure against the presence of foreign object damage?  $(TM\ 1-1500-204-23-1, para\ 3-2b)$  **P/F/NA**
- (6) Does the ASO analysis and develop control options when hazards are found during surveys? (AR 385-95, para 2-2c(2)(d))

  P/F/NA
- (7) Is housekeeping of the grounds around the operations building and parking areas accomplished to ensure that FOD materials are policed and disposed of properly? (FM 3-04.300, para 3-25)

P/F/NA

(8) Does the airfield commander or manager develop procedures to ensure safe site maintenance, daily cleanup, waste control and material/equipment storage? (AR 95-2, para 13-3c(18)) P/F/NA

### c. Hazard Communication

(1) Does the airfield have a written hazard communication plan? (29 CFR 1910.1200e)

P/F/NA

- (2) Have personnel received hazard communications training? (29 CFR 1910.1200h; UR 385-10, para 9; Section X(9)(a))

  P/F/NA
- (3) Are Material Safety Data Sheets (MSDS) maintained in the work place and readily available for personnel working with hazardous chemicals? (29 CFR 1910.1200g; UR 385-10, para 4j(10))

P/F/NA

- (4) Is an accurate inventory is maintained of all hazardous chemicals used by personnel? (AR 385-95, para 2-5a)

  P/F/NA
- (5) Ares hazardous chemicals properly labeled, stored, used, and disposed of? (AR 385-95, para 2-5d) P/F/NA

#### d. Hazardous Materials Storage and Use

(1) Does the airfield have a written Hazardous Material Handling SOP addressing use, disposal, and emergency spill response for garrison and field environments? (AR 200-1, para 1-32; FM 3-04.500, para 8-100)

P/F/NA

- (2) Are approved storage cabinets used to store flammable liquids labeled "FLAMMABLE-KEEP FIRE AWAY"?  $(29\ CFR\ 1910.106(d)(3)(II))$  P/F/NA
- (3) Are there provisions to contain the liquid in the event of spillage (liquid-tight raised sills or ramps at least four (4) inches in height) inside storage rooms? (29 CFR 1910.106(d)(4)(i); 29 CFR 1910.106(f)(7))

  P/F/NA
- (4) Is a portable fire extinguisher located outside of, but not more than ten (10) feet from the door opening into any room or building used for storage? (29 CFR 1910.106(d)(7)(i)(a)) P/F/NA
- (5) Is a portable fire extinguisher located not less than 10 feet, nor more than 25 feet, from any Class I or Class II liquid storage area located outside of a storage room but inside a building?

  (29 CFR 1910.106(d)(7)(i)(b))

  P/F/NA
- (6) Are POL packaged products stored by product, date of pack, and batch or lot number so that the oldest can be issued first? (DA Pam 710-2-1, para 12-27c)

  P/F/NA
- (7) Are packaged products inspected every 90 days to determine if each product is within shelf life usability and to determine container condition? (AR 710-2, Appendix C-4b(2); DA Pam 710-2-1, para 12-27)

  P/F/NA
- (8) Are products checked against the DOD Quality Status List (QSL) during required inspections?  $(AR\ 710-2, Appendix\ C-4b(3))$ 
  - (9) Is FED STD 793 utilized to extend shelf life of GSA items? (AR 710-2, para 2-37l(2)(h))
    P/F/NA

#### e. Protective Clothing and Equipment

- (1) Is proper protective clothing and equipment available in the work place when working with hazardous chemicals? (AR 385-10, para 2-2j; UR 385-10, para 4j)

  P/F/NA
- (2) Are suitable facilities available for quick drenching or flushing of the eyes and body within work areas where persons may be exposed to injurious corrosive material? (29 CFR 1910.151(c)) P/F/NA
- (4) Are first aid kits with an adequate quantity of first aid supplies approved by the consulting physician readily available?  $(29 \ CFR \ 1910.151(b))$  P / F / NA
- (5) Is personal protective equipment provided, used, and maintained in a sanitary and reliable condition?  $(29 \ CFR \ 1910.132(a))$  P / F / NA
- (6) Where employees are subjected to sound at or above 85 decibels (dBA) on the A scale, are feasible administrative or engineering controls utilized? If such controls fail to reduce sound levels within 85 dBA, is personal protective equipment provided to those employees? Are those employees required to wear the personal protective equipment? (29 CFR 1910.95)

  P/F/NA
- (7) Do all maintenance personnel wear hearing protection in the performance of their duties while aircraft are operating? (TM 1-1500-204-23-1, para 3-2a)

  P/F/NA

## f. Environmental Protection Program

- (1) Are there written Standard Operating Procedures detailing the Environmental Protection Program? (AR 385-95 para 2-15a; AR 200-1 para 1-32d)

  P/F/NA
  - (2) Has an Environmental Compliance Officer been appointed on orders? (AR 200-1, para 1-32)

    P / F / NA
  - (3) Has the ECO attended Environmental Training? (AR 200-1, para 1-32) P/F/NA
  - (4) Has a spill contingency plan been developed? (AR 200-1, para 3-3 and 4-3k) P/F/NA
- (5) Are the appropriate records detailing the Environmental Protection Program being maintained IAW the ARIMS?  $(AR\ 25-400-2)$  P/F/NA

#### g. Fire Prevention and Protection

- (1) Is there an emergency action plan established and kept in the work place? (29 CFR 1910.38 (b))
- (2) Are monthly fire inspections conducted and documented? (29 CFR 1910.156 (d); 29 CFR 1910.157(e)) P/F/NA
- (3) Are risk assessments conducted and countermeasures developed for all fire hazards identified during inspections? (AR 385-10, para 3-9)

  P/F/NA
- (4) Is smoking prohibited within 50 feet of aircraft? (FM 3-04.500; TM 1-1500-204-23-1, para 3-5d(3), para 3-7b) **P/F/NA**
- (6) Are fire extinguishers serviceable and dispersed appropriately? (29 CFR 1910. 157; AR 420-90, para 6-4g; NFPA Code 10, chapter 6)

  P/F/NA
- (7) Are monthly inspections of fire extinguishers complied with? (29 CFR 1910.157(e)(2); NFPA Code 10, chapter 7.2.1.2)

  P /  $\mathbf{F}$  /  $\mathbf{NA}$
- (8) Are records for manual inspections kept on a tag or label attached to the fire extinguisher or an inspection checklist maintained on file? (NFPA Code 10, chapter 7.2.4) P/F/NA
- (9) Are the initials of the person conducting the inspection and the date of the inspection recorded? (NFPA Code 10, chapter 7.2.4) P/F/NA
- (10) Are the appropriate number and type of fire extinguishers available for the number and type of aircraft parked on the flightline? ( $AR\ 420-90$ ,  $para\ 6-4g(2)$ )

  P/F/NA
  - (11) Are fire extinguishers properly marked? (FM 3-04.300, para 3-24) P/F/NA
- (12) Are fire extinguishers taken annually to the firefighting facility for recharging? (FM 3-04.300, para 3-26) P/F/NA

(13) Does every landing strip and helipad without regularly assigned ARFF vehicles have a 125 pound BC, dry chemical and/or compressed air foam system or equivalent, wheeled fire extinguisher? (AR 420-90,  $para\ 6-4g(2)(e)$ )

P/F/NA

# 3. Flight Line

## a. Ground Vehicles

- (1) Are all vehicles authorized to operate on the airfield equipped with a beacon? (FM 3-04.300, P/F/NA
- (2) Is the maximum speed for vehicles operating in the vicinity of aircraft five miles per hour, and no more than 40 miles per hour on other areas of the airfield? (FM 3-04.300, para 3-40) P/F/NA
- (3) Does the airfield commander or manager develop procedures to ensure safe vehicle routes to/from airfield construction areas? (AR 95-2, para 13-3c(18))

  P/F/NA
- (4) Does the flight line safety officer or airfield manager annotate on all drivers DA Form 348 or OF 346 completion of the annual vehicle operations near aircraft briefing? (Army in Europe Reg 385-55, para 3-18)

  P / F / NA
- (5) Are aircraft parked outside grounded and bonded while servicing (i.e. fueling, defueling, or any flammable fluids)? (TM 1-1500-204-23-1, para 3-4a)

  P/F/NA

## b. Marking and Lighting

- (1) Are runway and heliport marking and lighting in accordance with UFC 3–535–01 and UFC 3–260–05A? (AR 95-2, para 13-4f)

  P/F/NA
- (2) Are airfield signs and lights frangible-mounts, installed IAW UFC 3-535-01? (*UFC 3-535-01*, chapter 3-1.8.2, 3-5.10.3; 3-7.2.1; 3-7.7; 4-2.4; 4-3.4; 4-4.5; 7-3.1; 7-5.1; 7-6.3; 8-6.5; 12-1.7)

  P/F/NA
- (3) Does the airfield commander or manager establish a recurring budget and schedule for runway rubber removal and painting? (AR 95-2, para 13-3c(21))

  P/F/NA
- (4) Does the airfield commander or manager correct deficiencies/outages in airfield lighting systems, markings and signs? (AR 95-2, para 13-3c(22)) P/F/NA
  - (5) Are flightline grounding points marked and tested? (TM 1-1500-204-23-1, para 3-4c(1)) P/F/NA
- (6) Are markers and markings used to delineate the usable limits of snow-covered runways, if needed? (FM 3-04.300, para 3-13) P/F/NA
- (7) Are wind direction indicator intended for use at night illuminated, and have a red obstruction light mounted on the mast? (*UFC 3-535-01, chapter 7-8.4*) P/F/NA
- (8) Are runways marked with white reflective paint and taxiways marked with yellow reflective paint? (FM 3-04.300, para 3-10) P/F/NA

- (9) Is paint used to mark or re-mark runway and taxiway pavement? (FM 3-04.300, para 3-11)

  P/F/NA
- (10) Are wheel chocks marked on all sides with a yellow reflective paint or tape? (FM 3-04.300, para 3-22) P/F/NA

# c. Runway and Taxiways

- (1) Does airfield commander or manager maintain and promptly coordinate for the repair of pavement for each runway, taxiway, loading ramp, and parking area on the airport that is available for aircraft? (AR 95-2, para 13-4c and d)

  P/F/NA
- (2) Are Airport/heliport surface areas maintained in accordance with UFC 3–260–01? (AR 95-2, para 13-4e)

  P/F/NA
  - (3) Does the airfield maintain and carry out a snow and ice control plan? (AR 95-2, para 13-4g) P/F/NA
- (4) Is the traffic and wind direction indicators maintained in accordance with UFC 3–535–01? (AR 95-2, para 13-4j)

  P/F/NA

# **REFERENCES:**

AE Policy Letter #3	04/18/2006	AER 385-7	01/16/2003
AR 11-34	02/15/1990	AR 25-400-2	11/15/2004
AR 95-1	03/03/2006	AR 95-2	04/10/2007
AR 200-1	02/21/1997	AR 385-10	02/29/2000
AR 385-40	11/01/1994	AR 385-55	03/12/1987
AR 385-63	05/19/2003	AR 385-64	02/01/2000
AR 385-95	12/10/1999	AR 420-90	10/04/2006
AR 600-55	12/31/1993	AR 672-74	04/28/1995
AR 700-68	06/16/2000	AR 700-141	05/24/2004
DA PAM 40-501	12/10/1998	DA PAM 385-40	11/01/1994
DA PAM 738-751	03/15/1999		
FM 3-04.111	08/21/2003	FM 3-04.300	04/26/2004
FM 3-04.500	08/23/2006	FM 5-0	01/20/2005
FM 7-1	09/15/2003	FM 5-19	08/21/2006
NFPA Code 10	08/17/2006	TB 385-4	08/01/1992
TC 1-210	06/20/2006	TM 1-1500-204-23-1	05/31/2006
TM 5-823-4	04/25/1988	TM 11-6140-203-23	07/15/2004
UR 385-10	05/02/1996	14 and 29 CFR	
Advisory Circular		Unified Facilities Criteria (UFC)	